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# The impact of industry force factors on resource competitive strategies and hotel performance

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# ABSTRACT

This study integrates the Porter's five forces and resource-based approach measuring U.S. hotel performance. The results show that hotels with the advantage of low customer bargaining power and low threat of new hotel entrants exhibit the strong human resource and information technology (IT) strategies. In contrast, hotels with the advantage over existing competitors do not exhibit any significant competitiveness of brand image, human resource, and IT strategies. This dues to different hotels define competitors with various criteria such as proximity and price. Competitive human resource and IT strategies indicate the increase of hotel performance, while competitive brand image strategy has no influence on hotel performance. The competitiveness of brand image strategy may overlap with implementing human resource and IT strategies.

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# 1. Introduction

A common objective for operating any business is to succeed in high profitability and increase performance. A competitive strategy is one of the factors that have a major influence on objective achievement. Developing the competitive strategy, however, is a challenging task for many hoteliers because the hotel industry is changing dramatically in the face of intense competition, increasing customer sophistication, and rapid technological advances. Harrison (2003) proposed some considerations for a hotel's strategic development before it implements any competitive strategy, such as: (1) How can the hotel take advantage of changes that are expected to occur in the industry? (2) Are there any resources or capabilities the hotel could develop to achieve competitive advantages?

Enz (2010:17) defines the meaning of strategy as: (1) "a pattern that emerges in a sequence of decision over time", or (2) "an organizational plan of action that is intended to move a company toward the achievement of its shorter-term goals and, ultimately, its fundamental purposes." Since strategy can be implemented over a short period of time, hoteliers become opportunistic, seizing all possi-

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bilities thrown up by the environment. A truly strategic approach would be to take into consideration as many factors as possible that impact on the hotel's performance. Regarding the external factors, Porter (1985) proposed the analysis of the industry boundaries based on the five forces of competitions (potential entrants, customers, suppliers, substitutes, and rivalry among existing firms). The concept of this approach is that the greater the weakness of the five forces that affect the firms, the greater the expected profitability in the industry. The existing hotels can apply five forces for some specific actions such as implementing new strategies for the current environment or a decision of leaving from the business (Enz, 2010). In the mean time, the internal factors can be explained by resources and capabilities possessed by an organization, which is represented as the resource-based view (Barney, 1991). Some common competitive resources are physical resources (e.g. buildings, equipment, and location), human resources (e.g. skills and well-trained staff), and general organizational resources (e.g. brand names and firms' reputation) (Barney, 1991). From the resource-based perspectives, many strategic methods have been applied in the hotel industry until present such as branding, technology innovation, niche marketing and advertising, pricing tactics, cost containment, service quality management, computer reservation systems, and employee relationship (Olsen et al., 2008; Lu and Chiang, 2003; Wong and Kwan, 2001). In the past, most researches tend to emphasize on single factor, either external or internal for strategic development. However, these days, these two theories - five forces and resourcebased - dominate strategic management discourse today (Chathoth and Olsen, 2007; Galbreath and Galvin, 2008; Kim and Oh, 2004).

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Kim and Oh (2004) explored the conceptual difference of the Porter's five forces model and the resource-based approach in measuring hotel performance, and how the theories explained the hotel firm ability to compete. Galbreath and Galvin (2008) investigated the role of firm resources and industry structure on business performance in manufacturing and service firms. They argued for future research in other industry which may provide different phenomena. Chathoth and Olsen (2007) found significant relationships among environment, strategy, structure, and performance in the restaurant business. Olsen et al. (2008) studied the co-alignment of relationships among environmental events, strategy choice, firm structure, and performance in the hospitality industry. The notion of these researches is that external and internal factors create the best value of competitive strategy over time in order to succeed high performance.

The current study aims to address the research gaps that have been identified in the literature. First of all, following the lead of Galbreath and Galvin (2008), this study integrates two approaches: industry five forces approach and resource-based theory. However, Galbreath and Galvin's study was limited by industry uniqueness, such that the factors operated differently in the restaurant industry compared to the hotel industry. Hence the current study will focus on investigating these two approaches in the hotel industry for more in-depth insight into strategy implementation. Secondly, previous studies investigated the direct impact of five industry forces and firm resources on firm performance (Kim and Oh, 2004; Galbreath and Galvin, 2008). This study has adapted from the co-alignment model of Olsen et al. (2008), utilizing industry structure (defined by the five forces) as the antecedent variable for developing competitive strategies (for building firm resources) and consequently explaining hotel performance. In other words, competitive strategies are the mediating variables between industry forces and hotel performance. Therefore, the purposes of this study are (1) to explore the influence of industry forces on implementing competitive strategies, and (2) to assess the relationship of competitive strategies on hotel performance.

## 2. Literature review

## 2.1. Industry forces

Porter (1985) provided a framework called Porter's five forces. Its purpose is to gain a thorough understanding of a particular industry by analyzing the suppliers' bargaining power, customers' bargaining power, rivalry among existing firms, threat of new market entrants, and threat of substitute products. Industry forces explain performance in that a firm's success depends on how it reacts to market signals and how it accurately predicts the evolution of industry forces (Kim and Oh, 2004). When hoteliers understand the effect of each industry force, they can take either defensive or offensive actions in order to place themselves in a suitable position against the pressure exerted by these industry forces (Ormanidhi and Stringa, 2008). Of the five force factors, the threat of substitutes and bargaining power of suppliers do not seem to have a major influence on competitive strategies. According to Kim and Oh (2004) and Olsen and Roper (1998), the bargaining power of suppliers in the hotel industry appears to be low because of the large number of suppliers. This indicates that no supplier dominates the lodging market competition. Substitutes also constitute only a minor threat in the hospitality industry. This occurs when hotels offer similar or mass products and services (Dale, 2000). As the bargaining power of suppliers and the threat of substitutes tend to have little influence on implementing competitive strategies, the hotel business is mostly driven by customers, competitors, and new hotel entrants. Therefore, this study emphasizes only these three force factors—rivalry among existing hotel firms, bargaining power of customers, and threats of new hotel entrants.

# 2.1.1. Rivalry among existing firms

The degree of rivalry determines the extent to which the value created by an industry is dissipated through head-to-head competition (Karagiannopoulos et al., 2005). Intense rivalry is the result of a number of interacting structural factors: numerous or equally balanced competitors, slow industry growth, high fixed or storage costs, lack of differentiation or switching costs, capacity augmented in large increments, and diverse competitors (Botten and McManus, 1999). Competitive intensity in the hospitality industry increases due to an increased number of operating units, new product introductions, and market entries of non-traditional products such as corporate housing (Kim and Oh, 2004). For the hotel industry, most rivals are determined according to similarity of price, segment, and proximity (Mathews, 2000). The hotel can decrease the degree of rivalry of existing hotels by differentiating hotel products and services (Enz, 2010).

#### 2.1.2. Bargaining power of customers

The bargaining power of customers is the ability of customers to force down prices, bargain for higher quality or more services, and play competitors off against one another (Botten and McManus, 1999). The size and concentration of customers are the determining factors of customers' power. This includes the volume of buying from customers. A study of Taylor and Finley (2009) stated that one of the major forces driving change in the hospitality environment is customers. The higher volume of product buying, the cheaper price and the more bargaining power of customers will have. Many hospitality firms seek to reduce customers' power by creating loyalty programs that reward customers for repeat purchases and by differentiating product and service offerings (Crook et al., 2003). If the hotels can withhold the bargaining power of customers, they have the competitive strategies and would be able to reach the most profitability for their business.

#### 2.1.3. New market entrants

The threat of new market entrants refers to the prospect of new competitors entering an industry. The most common barriers to entry are economies of scale, brand equity, product differentiation, capital requirements, switching costs, access to distribution channels, cost disadvantages independence of scale, and government policy (Botten and McManus, 1999). The hotel industry has high entry barriers such as a huge amount of investment required for buildings and the need for a national service network. However, companies or people with no experience in the industry investing in hotels are a threat (Kim and Oh, 2004). Harrison (2003) argues that some hospitality firms aggressively promote their brands in the hopes of creating differentiation and consumer loyalty, thus blocking attempts of newcomers to enter.

Depending on the environment, strategic formulation and implementation are often based on local conditions facing the hotel and the internal resources provided in response to them. Therefore, the competitiveness of hotel performance depends on strategic implementation (Brown and Dev, 2000). Karagiannopoulos et al. (2005) found that industry forces are valuable for business strategy formulation and implementation. The business should identify its position in the market area and fight against the competition that threatens its strategic position before formulating strategies. Furthermore, Covin and Slevin (1990) showed that industry forces have a major impact on firm strategies. The notion is that companies must adopt a more dynamic strategy to defend themselves against industry structures and increase their market share.

# 2.2. Competitive strategies

A firm's competitive advantage develops valuable firm resources and skills to yield position advantages, and obtains positive outcomes in terms of market shares and profitability (Barney, 1991). The resource-based analysis of competitive advantage comes from two basic empirical generalizations. First, there are systematic differences across firms to the extent to which they can control resources necessary for implementing strategies. Second, these differences are relatively stable. The basic structure of the resource-based perspective emerges when these generalizations are combined with fundamental assumptions largely derived from economics. These assumptions are that (1) differences in firms' resource endowments cause performance differences and that (2) firms seek to increase economic performance (Foss, 1998). The resource-based approach adopts the internal firm perspective-internal firm resources to performance (Kim and Oh, 2004).

Gursoy and Swanger (2007) explored the influence of research and development capabilities (sales, research and development distribution, customer services, marketing, human resources, accounting, and IT) on financial success in hospitality firms. The results showed that these capabilities have a positive influence on financial performance. The hospitality operators can niche to these factors to enhance financial success. Meanwhile, Wong and Kwan (2001) investigated some hotel competitive strategies applied in Hong Kong and Singapore. Some of these strategies are meeting customer expectations, differentiating market offerings, building service delivery systems, mobilizing people and partner, leveraging information technology to deliver value, defining service standards and performance, cost competitiveness, reliance on local and expatriate staff, and delivering services across countries. The results showed that these hotels consider maintaining these competitive edges through both financial and non-financial strategies domestically and internationally. Wong and Kwan (2001) further suggested that these hotels can increase value of these competitive strategies by improving the leverage of services and technology provided to customers.

Galbreath and Galvin (2008) explored whether firm resources or industry structures were better indicators explaining variations in firms' performance. Investigating manufacturing and service firms in Australia, the effect of firm resources is greater in service firms than in manufacturing firms. Resources especially intangible assets such as company reputation, copyrights, and human resource management policies were more important determinants than industry structure in explaining performance variation. In contrast, tangible resources such as land, physical structure, and financial statements had a non-significant association with performance. Moreover, some of the five forces of industry structure were significant to firm performance, which is consistent with theory. Karagiannopoulos et al. (2005) investigated the three differentiating resources advantage of hotel firms: brand image, human resource, and IT. Following their lead, these three resources - brand image, human resource, and IT - are selected for this study because many hoteliers utilize them in implementing competitive strategies and differentiating between hotels (Lu and Chiang, 2003).

# 2.2.1. Brand image strategy

According to Ataman and Ulengin (2003), brand image includes the product's name, its main physical features and appearance (including the packaging and logo), and its main functions. Brand is one of the most valuable assets of hotel firms (Keller and Lehmann, 2003). Brand can create a perceived difference between hotels even if functional characteristics of the products are not substantially differentiated (O'Neill and Mattila, 2010). Having a strong brand enables hotels to distinguish its offerings from the competition, create customer loyalty in performance, exert greater control over promotion and distribution of the brand, and command a premium price over the competitors (Holverson and Revaz, 2006). Hence, Hypotheses 1a–c are proposed as follows:

**Hypothesis 1a.** The hotels that have an advantage over existing rivals will influence a strong brand image strategy.

**Hypothesis 1b.** The hotels that have an advantage over customers' bargaining power will influence a strong brand image strategy.

**Hypothesis 1c.** The hotels that have an advantage over threat of new entrants will influence a strong brand image strategy.

#### 2.2.2. Human resource strategy

The achievement of human resource management practices can increase competitive advantage and provide a direct and economically significant contribution to organization performance (Kim and Oh, 2004; Wang and Shyu, 2008). As the hotel industry is becoming increasingly complex and requires greater skills from all levels of employees, many hotels are trying to improve employee retention by offering education and rewards and raising the overall skill level of all employees (Olsen et al., 2008). Some hotels propose their human resource strategy in terms of increasing service hours, or putting in resources such as training to enhance service to disabled guests (Lu and Chiang, 2003). Wong and Kwan (2001) recommend that mobilizing human resources can be more effective with a clear and well-understood mission statement for the hotel firms to maximize long-term competitiveness. Thus, Hypotheses 2a–c are proposed as follows:

**Hypothesis 2a.** The hotels that have an advantage over existing rivals will influence a strong human resource strategy.

**Hypothesis 2b.** The hotels that have an advantage over customers' bargaining power will influence a strong human resource strategy.

**Hypothesis 2c.** The hotels that have an advantage over threat of new entrants will influence a strong human resource strategy.

## 2.2.3. Information technology strategy

Yeh et al. (2005:32) define the meaning of information technology (IT) application as "any hardware, middleware, and/or software including transactions using the Internet, network, and other digital technologies." The benefits of technology to the service organization, customers, and employees have been studied in widespread academic areas. IT can be used to manage market complexity as a deliberate strategy to gain competitive advantage (Crichton and Edgar, 1995). Industry forces are transformed to competitive threats in the IT department. The threat of new entrants becomes the threat of new technology that would disrupt the viability of the IT department's operational landscape. The bargaining power of customers becomes the IT users exerting pressure of not buying IT services under a charge-back environment. Rivalry among existing firms is the threat of internal system development, including end-user development and decentralization of IT activities (Martin et al., 1999). Thus, Hypotheses 3a-c are proposed as follows:

**Hypothesis 3a.** The hotels that have an advantage over existing rivals will influence a strong IT strategy.

**Hypothesis 3b.** The hotels that have an advantage over customers' bargaining power will influence a strong IT strategy.

**Hypothesis 3c.** The hotels that have an advantage over threat of new entrants will influence a strong IT strategy.

#### 2.3. Hotel performance

After managers implement business strategies, they must evaluate the organizational effectiveness by measuring performance.

#### The Proposed Conceptual Model

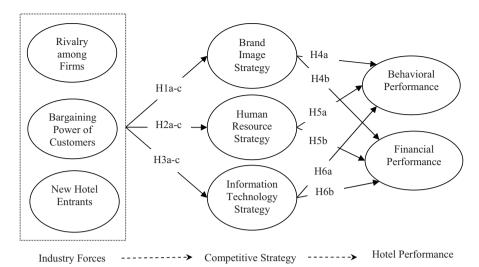


Fig. 1. The proposed conceptual model.

Performance may be perceived differently by different stakeholders, and may vary over the firm's life cycle (Tse, 1991). Performance measures can be established to focus either on actual performance results (outputs) or on the activities that generate performance (behavior). Output controls specify what is to be accomplished by focusing on the result of the behavior using objectives and performance targets. Behavioral performance measurement is appropriate for situations in which performance results are hard to measure and in which there is a clear cause–effect connection between activities and results (Botten and McManus, 1999). Meanwhile, financial performance is appropriate and acceptable in comprehending organizational effectiveness, citing the many benefits that profitable and well-run companies provided for the society and for their relevant stakeholders (Randolph and Dess, 1984; Snow and Hambrick, 1980).

Sharma and Upneja (2005) found that hotel performance is influenced by internal factors (i.e., employee training, investments in equipment, and availability of financing options) and external factors (i.e., institutional environments and product service standardization systems). Moreover, organizational assets (i.e., organizational structure and human resource management and policy) and reputational assets (i.e., company reputation, customer service reputation, and product reputation) are significantly and positively associated with hotel performance.

Some studies claim a positive correlation between brand image and a firm's performance (Phillips et al., 2002; Aaker, 1996). Kim et al. (2003) investigated the impact of dimensions of hotel brand on performance. The results show that brand image has the most significant impact on hotel financial performance (revenue per available rooms – REVPAR – in hotels). Kim et al. (2003) argued that brand image is a long-term measure; hence, hotel marketers must be equipped with a detailed knowledge of important brand attributes. A strong brand name causes a significant increase in revenue and a lack of brand name in hotel firms can damage potential sales flow. Thus, Hypotheses 4a and b are presented as follows:

**Hypothesis 4a.** The strong brand image strategy would influence the positive hotel behavioral performance.

**Hypothesis 4b.** The strong brand image strategy would influence the positive hotel financial performance.

Human resource development makes a difference in high performance, and may even be more critical in the hospitality industry (Crook et al., 2003). The attitudes and actions of employees affect the success of a hotel service encounter. Sharma and Upneja (2005) indicated that the financial performance of hotel operations is crucially dependent on formal education and technical training of front-line employees. In the other words, hotel employees are the main factors driving the differentiating services to customers, which lead to superior performance (Bowen and Chen, 2001). Furthermore, Wong and Kwan (2001) found the relationship between human resource development and hotel performance. Therefore, Hypotheses 5a and b are explained as follows:

**Hypothesis 5a.** The strong human resource strategy would influence the positive hotel behavioral performance.

**Hypothesis 5b.** The strong human resource strategy would influence the positive hotel financial performance.

IT enhances service quality performance (Dollas, 1993; Reid and Sandler, 1992), enhances a firm's value chain (Porter, 1985), creates competitive advantage (Porter, 1985), and improves the skills of the people who make up the service organization (Berry, 1995). Law and Jogaratnam (2005) studied IT applications in the hotel industry in Hong Kong. According to the results, IT is an essential component in the strategic planning process of the hotel business performance and in improving customer service. Yeh et al. (2005) investigated implementing IT applications in the hospitality industry to satisfy customers and develop a competitive advantage for receiving travelers' information and booking accommodation. The results show that hotel traveling customers have a positive perception of IT applications, which include an efficient and effective hotel Web site and concierge services such as in-room dining, concerts, tours, and other information. On the other hand, express checkin/check-out, in-room high-speed Internet access, and an accurate and reliable Web site for gathering information and making reservations are important factors for business customers. Therefore, Hypotheses 6a and b are proposed as follows:

**Hypothesis 6a.** The strong IT strategy would influence the positive hotel behavioral performance.

**Hypothesis 6b.** The strong IT strategy would influence the positive hotel financial performance.

Based on the proposed hypotheses, the conceptual model is established, as explained in Fig. 1. When hotels have the advantage over the industry forces in terms of rivalry among hotel firms, bargaining power over customers, and new hotel entrants, these advantages can indicate the competency in brand image, human resource, and IT strategies. As a result, these competitive resource strategies will increase hotel performance behaviorally and financially.

# 3. Methodology

#### 3.1. Research design and survey instrument

This study employed causal and descriptive research designs to determine the cause-and-effect relationships among factors: industry forces, competitive strategies, and hotel performance based on a strong theoretical foundation of the Porter's five forces (Porter, 1985) and resource-based theory (Barney, 1991).

A self-administered questionnaire was developed based on the review of the literature. It consists of three sections with 31 questions in total. Section I explores the hotel characteristics (five questions). Questions are about hotel affiliation, type of lodging, scale of lodging, location, and hotel size. Section II assesses respondents' agreement on the six items of industry forces adapted from the study of Weerawardena et al. (2006), and nine items on competitive strategies adapted from the studies of Wong and Kwan (2001) and Kim and Oh (2004). Each statement of industry forces and competitive strategies was measured by using the five-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). The higher rating indicates that the hotel has more advantages of each industry force-factor and stronger competitive strategies than its competitors. Six statements on hotel performance were measured by the five-point Likert-type scale from 1 (below the industry norm) to 5 (above the industry norm). Items were developed from the study of Jogaratnam and Tse (2004). Lastly, Section IV (five questions) explores the hoteliers' demographic profiles such as age, gender, education, current position, and years of current position.

#### 3.2. Sampling approach and data collection

The target population of this study was hotel owners, general managers and executive managers whose e-mail addresses were listed on a publicly available e-mail database. The database contains 5500 e-mail addresses of hotel owners, hotel general managers, executives, and operational managers of lodging properties in all states in the U.S. These properties are affiliated by chain and independent as well as many different regions in the U.S. A census survey was conducted, and an invitation e-mail was sent to all hoteliers listed on the database for participation in the survey. The survey was first conducted in October 2008. The follow-up survey was sent to individuals, who did not respond to the first time survey in two weeks and six months later. There were 21 attributes in the survey questionnaire, so a minimum sample size should be at least 210 for the requirement of a structural equation modeling (SEM). A total of 317 responses were received at the end of the survey, which met the recommended criteria of the statistical power of SEM by Kline (2005) and Stevens (2002).

Samples were drawn from two groups of hotels – chain and independent – which may have slightly different industry dynamics. The Independent sample *T*-test was applied to test for any possible statistical difference between these two groups. Only four items were significantly different between chain and independent hotels, so the researchers decided to include these two groups together for hypotheses' testing.

#### 3.3. Analysis of data

A descriptive analysis explored the respondents' and hotel properties' characteristics. Confirmatory factor analysis (CFA) was applied to evaluate the measurement model validity. CFA explored the composite construct reliability, average variance extracted, convergent validity, and discriminant validity of eight constructs: rivalry among existing firms, bargaining power of customers, new hotel entrants, brand image strategy, human resource strategy, IT strategy, behavioral performance, and financial performance (Bagozzi and Yi, 1988; Fornell and Larcker, 1981; Hair et al., 2006).

SEM was applied to test the conceptual framework of this study. One of the important advantages of SEM is the ability to allow explicitly for measurement error (Rigdon, 1994). SEM incorporating unobservable variables and measurement error has increased applications in theory testing and empirical model building in marketing (Fornell and Larcker, 1981). Lisrel 8 was used to test the proposed model.

#### 4. Results

#### 4.1. Respondents' and hotel properties' characteristics

Table 1 shows the demographic characteristics of the respondents. Approximately 59.3% of respondents were male (169) and 40.7% were female (116). Of the respondents, 17% (49) were 18–30 years old, 39.8% (115) were 31–45 years old, and 43.2% (125) were older than 46 years old. A total of 69.4% (197) earned a bachelor's degree or higher, and only 7.4% (21) had a high school degree. Of the respondents, 48.8% (154) were either hotel owners or general managers, and 32.7% (103) were division managers. A total of 26% (82) of respondents have worked in their current position for less than three years, while 41.3% (130) of respondents have worked in their current position for more than 10 years.

The hotel property characteristics are described in Table 1. Of the properties, 41.2% were chain hotels (128) and 58.8% were independent hotels (183). A total of 59.9% (184) of the properties were hotels, 18.2% (56) were motels/inns, and 16.3% (50) were resort hotels. A total of 48.5% (149) properties were mid-scale properties, with and without food and beverage. Of the properties, 46% (141) were upscale, up-upscale, or luxury. A total of 25.5% (78) of the properties were located in urban areas, and 45.8% (140) were located in resort areas. With regard to property size, 46.2% (145) were small, 34.7% (109) were medium, and 19.1% (60) were large.

# 4.2. Confirmatory factor analysis among constructs

Table 2 presents the standardized loadings and the t-value of each indicator. All indicators had significant standardized loadings of  $\rho < 0.05$ , and *t*-values of the individual indicators ranged from 10.57 to 19.88 (Gerbing and Anderson, 1988). The reliability and validity of the measures represent the constructs being evaluated and assess the psychometric properties of scaled measures (Fornell and Larcker, 1981). Composite reliabilities indicate internal consistency, which means that the measures consistently represent the same latent construct. The composite construct reliability of each construct ranged from 0.74 (bargaining power of customers) to 0.85 (IT strategy), which meets the acceptable criteria (Fornell and Larcker, 1981; Hair et al., 2006). The variance-extracted estimate measures the amount of variance captured by a construct in relation to the variance due to random measurement error. The variance extracted scores of the constructs ranged from 0.50 (human resource strategy) to 0.65 (IT strategy), which suggests adequate convergent validity (Bagozzi and Yi, 1988; Fornell and Larcker, 1981; Hair et al., 2006).

# Table 1

Table I	
Respondents' and hotel properties	characteristics.

Characteristics	n	%	Characteristics	n	%
Gender			Affiliation		
Male	169	59.3	Chain	128	41.2
Female	116	40.7	Independent	183	58.8
Age			Type of lodging		
18–30	49	17.0	Hotel	184	59.9
31-45	115	39.8	Motel/Inn	56	18.2
46-60	93	32.1	Resort	50	16.3
Over than 60	32	11.1	B&B	10	3.3
Education			Timeshare	7	2.3
High School	21	7.4	Scale of lodging		
College/Associate	66	23.2	Budget	17	5.5
Bachelor's degree	149	52.5	Mid-scale without F&B	83	27.0
Master's and higher	48	16.9	Mid-scale with F&B	66	21.5
Current position			Upscale	79	25.8
Hotel Owner	77	24.4	Up-upscale	32	10.4
General Manager	77	24.4	Luxury	30	9.8
Resident Manager	29	9.2	Location		
Division Manager	103	32.7	Airport	23	7.5
Others	29	9.3	Urban	78	25.5
Year of current position			Suburban	49	16.0
Less than 3 years	82	26.0	Highway	16	5.2
3–6 years	61	19.4	Resort	140	45.8
7-10 years	42	13.3	Size		
More than 10 years	130	41.3	Small (1-100 beds)	145	46.2
-			Medium (101–300 beds)	109	34.7
			Large (more than 301 beds)	60	19.1

# Table 2

The measurement model of constructs.

Constructs				Facto	or loadings (t-value)		Average variance extracted		Composite eliability
Rivalry among existing firms						(	).63	0	.76
My hotel has fewer competitors.			0.68	(12.48)					
The competition in my area is less fierce	e.			0.89	(19.88)				
Bargaining power of customers						(	0.59	0	).74
Individual customers have less bargaini		my hotel room	rate.	0.74	(13.76)				
Individual customers show loyalty to m	ıy hotel.			0.80	(16.09)				
Entrants of new hotel firms						(	0.61	0	).75
It is difficult for new hotel entrants to e					(12.51)				
New hotels advertise heavily to overcon	me existing brai	nd preferences.		0.86	(18.72)				
Brand image strategy						(	).55	0	).79
My hotel makes conscious efforts to dif				0.75	(13.98)				
My hotel continually improves brand in					(16.24)				
Customers are constantly satisfied with	my hotel's exis	ting brand ima	ge.	0.61	(11.03)				
Human resource strategy						(	0.50	0	).75
My hotel has an adequate number of skilled staff members.			0.78	(14.49)					
	makes sufficient investment in HR training and development. 0.60 (10.57)								
My hotel staff is effective in completing	; their tasks.			0.74	(13.59)				
IT strategy					(	).65	0	.85	
My hotel uses IT as a competitive strategy.				0.87	(17.98)				
My hotel has a strong belief in advanced IT.			0.74	(14.51)					
My hotel uses new IT to accommodate customers' needs.			0.80	(16.14)					
Behavioral performance						(	).52	0	0.76
Different ways of delivering services to customers			0.65	(11.35)					
My hotel's customer satisfaction level			0.82 (14.53)						
My hotel's employee performance			0.68	(12.29)					
Financial performance					(	).52	0	).77	
My hotel's average annual occupancy rate				(12.33)					
My hotel's net profit after tax			0.76(13.29)						
My hotel's return on investment (ROI)				0.71	(12.51)				
Correlation	Mean	SD	1	2	3	4	5	6	7
1. Rivalry among existing firms	2.16	1.05	-						
2. Bargaining power of customers	3.57	0.80	0.20	-					
3. Entrants of new hotel firms	3.33	0.79	0.17	0.51	-				
4. Brand image	4.11	0.68	0.13	0.30	0.38	-			
5. Human resource	3.74	0.76	0.15	0.30	0.37	0.42	-		
6. IT	3.89	0.78	0.03	0.30	0.29	0.53	0.53	_	
7. Behavioral performance	3.95	0.60	0.06	0.16	0.11	0.24	0.55	0.26	-
8. Financial performance	3.46	0.78	0.07	0.02	0.38	0.12	0.22	0.35	0.3

 $\chi^2$  = 434.84, df = 164,  $\rho$  < 0.00; CFI = 0.92; GFI = 0.89; SRMR = 0.04; RMSEA = 0.069; NFI = 0.87; TLI = 0.89. Pearson correlation is significant at the 0.05 level (two-tailed).

All eight constructs were tested for the goodness of fit and validation of scales of the measurement of these constructs by the confirmatory factor analysis. Model fit for the measurement model was acceptable. The model exhibited a good fit of data, which was  $\chi^2$  = 434.84, degree of freedom (df) = 164,  $\rho$  < 0.00; comparative fit index (CFI) was 0.92; goodness-of-fit index (GFI)=0.89; standardized root mean residual (SRMR)=0.04; root mean square error of approximation (RMSEA) = 0.069; normed fit index (NFI) = 0.87; and Tucker–Lewis index (TLI)=0.89. These indices meet the accepted criteria for the overall model fit of the sample group suggested by Hair et al. (2006) and Kline (2005).

To investigate the multicollinearity of constructs, the assessment of discriminant validity is tested. Discriminant validity compares the variance-extracted estimates of the measurements with the square of the parameter estimate between the measurements. If the variance-extracted estimates of the constructs are greater than the square of the correlation between two constructs, the evidence of discriminant validity exists (Fornell and Larcker, 1981). For example the relationship between "brand image strategy" and "IT strategy," the average variance-extracted estimate of "brand image strategy" was 0.55 and that of "IT strategy" was 0.65. These two variance-extracted estimates are greater than the square of the correlation between "brand image strategy" and "IT strategy" ( $\Phi = 0.53$ ,  $\Phi^2 = 0.28$ ); see Table 2. Another example is the relationship between "human resource strategy" and "behavioral performance." The average variance-extracted estimate of "human resource strategy" was 0.50 and that of "behavioral performance" was 0.52. These two variance-extracted estimates are greater than the square of the correlation between "human resource strategy" and "behavioral performance" ( $\Phi = 0.55, \Phi^2 = 0.30$ ). Therefore, these results supported the discriminant validity of constructs. Since the discriminant validities exist, the multicollinearity issues of constructs are minimized. These investigations were applied with the discriminant validity of other constructs in this study as well.

#### 4.3. Impact of industry forces on competitive strategies

The structural paths were estimated to test the hypotheses between constructs. Table 3 presents the structural model fit with  $\chi^2$  = 567.69, df = 174,  $\rho$  < 0.00; CFI = 0.91; GFI = 0.89; RMSEA = 0.073; NFI=0.87; and TLI=0.89. Table 3 indicates the hypothesis testing on the influence of industry forces on brand image strategy. The results show that the low bargaining power of customers had a positive influence on brand image strategy ( $\gamma_{21} = 0.22$ ,  $\rho \le 0.01$ ). This supports H<sub>1b</sub>, which states that hotels that have an advantage over customers' bargaining power will influence a strong brand image strategy. Meanwhile, the lower threat of new hotel entrants was positive for and significant to brand image strategy ( $\gamma_{31} = 0.31$ ,  $\rho \leq$  0.001). The findings support H<sub>1c</sub>, which states that *hotels that* have an advantage over threat of new entrants will influence a strong brand image strategy. In contrast, the few rivalries among existing hotels were not statically significant to brand image strategy ( $\rho > 0.05$ ). This does not support H<sub>1a</sub>: hotels that have an advantage over existing rivals will influence a strong brand image strategy.

Table 3 presents the impact of industry forces on human resource strategy. This tests H<sub>2a-c</sub>, which states that hotels with the advantage of industry forces - few rivalries, low bargaining power of customers, and lower threat of new entrants - would influence indicate a strong human resource strategy. The results indicate that hotels with the advantage of low bargaining power of customers had a positive influence on human resource strategy ( $\gamma_{22}$  = 0.44,  $\rho \le 0.001$ ). This supports H<sub>2b</sub>, which states that *hotels* that have an advantage over customers' bargaining power will influence a strong human resource strategy. The lower threat of new

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Structural path estimates.

Path coefficients	Standardized loading ( <i>t</i> -value)	Hypotheses
Rivalry $\rightarrow$ brand image strategy ( $\gamma_{11}$ )	0.01 (0.20)	H <sub>1a</sub> : Not supported
Customers $\rightarrow$ brand image strategy ( $\gamma_{21}$ )	0.22 (2.81**)	H <sub>1b</sub> : Supported
New entry $\rightarrow$ brand image strategy ( $\gamma_{31}$ )	0.31 (4.16***)	H <sub>1c</sub> : Supported
Rivalry $\rightarrow$ HR strategy ( $\gamma_{12}$ )	0.01 (0.21)	H <sub>2a</sub> : Not supported
Customers $\rightarrow$ HR strategy $(\gamma_{22})$	0.44 (5.27***)	H <sub>2b</sub> : Supported
New entry $\rightarrow$ HR strategy $(\gamma_{32})$	0.18 (2.46 <sup>*</sup> )	H <sub>2c</sub> : Supported
Rivalry $\rightarrow$ IT strategy ( $\gamma_{13}$ )	0.07 (1.00)	H <sub>3a</sub> : Not supported
Customers $\rightarrow$ IT strategy $(\gamma_{23})$	0.20 (2.64**)	H <sub>3b</sub> : Supported
New entry $\rightarrow$ IT strategy $(\gamma_{33})$	0.27 (3.79***)	$H_{3c}$ : Supported
Brand image $\rightarrow$ behavioral performance ( $\beta_{11}$ )	0.02 (0.30)	$H_{4a}$ : Not supported
Brand image $\rightarrow$ financial performance ( $\beta_{12}$ )	0.03 (0.40)	H <sub>4b</sub> : Not supported
HR $\rightarrow$ behavioral performance ( $\beta_{21}$ )	0.53 (6.13***)	H <sub>5a</sub> : Supported
HR $\rightarrow$ financial performance ( $\beta_{22}$ )	0.15 (2.04 <sup>*</sup> )	H <sub>5b</sub> : Supported
IT $\rightarrow$ behavioral performance ( $\beta_{31}$ )	0.14 (2.15 <sup>*</sup> )	H <sub>6a</sub> : Supported
IT $\rightarrow$ financial performance $(\beta_{32})$	0.22 (3.09**)	H <sub>6b</sub> : Supported

Model fit indices:  $\chi^2 = 567.69$  (df = 174, p = 0.00); CFI = 0.91; GFI = 0.89; RMSEA = 0.073; TLI = 0.89.

\* ρ<0.05.

 $\stackrel{**}{\overset{**}{\underset{\rho < 0.001.}{}}} \rho < 0.001.$ 

hotel entrants was also significant to the human resource strategy ( $\gamma_{32}$  = 0.18,  $\rho \leq$  0.05). This supports H<sub>2c</sub>, which states *hotels that* have an advantage over threat of new entrants will influence a strong human resource strategy. On the other hand, rivalry among existing hotel firms was not significant to a competitive human resource strategy (p > 0.05). This result does not support H<sub>2a</sub>, which states that hotels that have an advantage over existing rivals will influence a strong human resource strategy.

 $H_{3a-c}$  were tested to determine if the advantage of industry forces - few rivalries, low bargaining power of customers, and lower threat of new entrants – would have a positive relationship on a IT strategy. According to the findings, the low bargaining power of customers was positive for a competitive IT strategy ( $\gamma_{23} = 0.20$ ,  $\rho \leq 0.01$ ). This finding supports H<sub>3b</sub>, which states that *hotels that* have an advantage over customers' bargaining power will influence a strong IT strategy. On the other hand, the lower threat of new hotel entrants was positive for a competitive IT strategy ( $\gamma_{33} = 0.27$ ,  $\rho \leq$  0.001). This supports H<sub>3c</sub>, which states that *hotels that have* an advantage over threat of new entrants will influence a strong IT strategy. However, rivalry of existing hotels was not significant  $(\rho > 0.05)$ . This finding does not support H<sub>3a</sub>: hotels that have an advantage over existing rivals will influence a strong IT strategy.

### 4.4. Impact of competitive strategies on hotel performance

Table 3 also presents the relationship of competitive strategies on hotel performance. According to the findings, competitive human resource strategy had a positive relationship on behavioral performance ( $\beta_{21}$  = 0.53,  $\rho \le 0.001$ ) and financial performance ( $\beta_{22}$  = 0.15,  $\rho \le 0.05$ ). These findings support H<sub>5a</sub>, which states that the strong human resource strategy would influence the positive hotel behavioral performance, and H<sub>5b</sub>, which states that the strong human resource strategy would influence the positive hotel financial performance. Moreover, the competitive IT strategy had a positive relationship on behavioral performance ( $\beta_{31} = 0.14$ ,  $\rho \le 0.05$ ) and financial performance ( $\beta_{32} = 0.22$ ,  $\rho \le 0.01$ ). These findings support H<sub>6a</sub>, which states that the strong IT strategy would influence the positive hotel behavioral performance, and H<sub>6b</sub>, which states that the strong IT strategy would influence and the strong IT strategy would influence the positive hotel financial performance.

In contrast, there was no statistical significance on the relationship between brand image strategy on hotels' behavioral and financial performance (p > 0.05). These results do not support H<sub>4a</sub>: the strong brand image strategy would influence the positive hotel behavioral performance, and H<sub>4b</sub>: the strong brand image strategy would influence the positive hotel financial performance.

#### 5. Discussions and implications

The objectives of this study are to explore the influence of industry forces on implementing competitive strategies and to assess the relationship of competitive strategies on hotel performance. When hotels have an advantage over low bargaining power of customers and with the fewer threat of new entrants, they are able to implement competitive human resource and IT strategies. Furthermore, the strengths of human resource and IT strategies are important indicators measuring hotel performance.

These findings indicate that industry forces have an impact on implementing competitive strategies. This result supports the previous findings of Grant (1991), Dev and Hubbard (1989), and Dube and Renaghan (1999). Hotels with the advantage of customer bargaining power indicate the positive influence on implementing competitive strategies. In general, customers make a hotel reservation or use other hotel services with a well-known brand hotel. One way for hoteliers to have the advantage over customers' bargaining power is to increase customer perceptions on the hotel's brand image. When customers perceive and satisfy with hotel products and services, they are more likely committed to the hotel brand. The low bargaining power of customers allows hoteliers to raise the price of room rates or other services provided by the hotel. If the hotel can develop strong brand image perceptions, customers are willing to pay the premium price of perceiving quality products and excellent services. This result shows that hotel can build a strong brand image that would distinguish it from other hotel brands. In addition, the loyalty customer program is another marketing method of hotels to increase the bargaining power over customers. The loyalty program reduces the likelihood of customer switching to use the competitors' products and services (Crook et al., 2003).

This study suggests that hotels with advantage of customers' bargaining power have a positive relationship on competitive human resource strategy. This result is the same as the previous findings of Kim and Oh (2004), Wang and Shyu (2008), and Taylor and Finley (2009). The competitive human resource strategy can be developed by high-quality training programs and employee development plans. In many occasions, customers stay at certain hotels because of the relationship between customers and employees. Some customers are willing to reduce their own bargaining power because they have with hotels of good services from qualified employees. As long as hotel employees remain the levels of customer relationship, meet customers' expectations, and complete tasks effectively, these strengths can retain customers.

An IT system is a high investment for hotels offering it to customers. Many hotels invest in advanced IT in order to influence customers' buying power. In other words, some customers prefer to stay in hotels with advanced IT. Services such as high-speed Internet and quick check-in and -out processes provide customers with more convenience and satisfaction. Some customers are willing to pay extra charges on rooms for advanced IT services from the hotel. Hence, hoteliers should consider developing an advanced IT strategy to decrease the bargaining power of customers to hotels.

The competitive brand image strategy of existing hotels can confine new hotels incoming to the industry. With the competition in brand image strategy, existing hotels can retain regular customers and increase new customers for its business growth (Jenkins, 2005). New hotel entrants may not be able to break the market segment proportion of the existing hotel firms. Even if new hotels try to promote their establishments by advertising or discounts, loyal customers will not be influenced by their marketing campaign. The hotel business is a big investment for new owners or investors. Opportunities for new hotel entrants to enter the market are available as new hotel firms can develop a resource no other hotel firms have. It would be very challenging for new hotels to enter the market, because hotel products and services are easily to imitate. As existing hotel firms have an advantage of brand image over new hotels, only their competitive strategies can allow them to survive in the industry and obtain some market shares from existing hotel firms.

Hotels with the advantage of lower threat of new hotel entrants also have a positive influence on implementing human resource strategy. Prospective hotels have to hire and train the new employees to be more superior to the employees of other existing hotel firms. New hotels have to invest more on new staff training and other human resource benefits to develop and retain quality employees. Meanwhile, existing hotels have staff who has worked in the hotel business for some time. These employees understand job duties and may only need training programs for performance improvement. Even though employees of prospective hotels may have work experience in the service industry, they have to adapt to the new working environment and internal structure. These changes are challenging for the employees of new hotels. Furthermore, developing customer loyalty through excellent service from employees makes it difficult for new entrants to the market to attract customers.

Hotels with the low threat of new hotel entrants show the competitive IT strategy. Existing hotels have the advantage over other new hotels because they have stable and advanced IT for business operations. On the other hand, new hotel entrants have to invest more in advanced IT systems and apply them to the entire hotel business units to be able to compete. If new hotel entrants can make a significant change in advanced IT and customers' perceptions, then there is an opportunity for them in the market. Another option for existing hotels to reduce the threat of new entrants over IT strategy is to provide advanced IT that no other hotel firms have provided. Advanced IT does not have to be new, as long as it can respond to customers' needs.

However, the few rivalries among existing hotel firms has no influence on implementing competitive strategies. These due to different hotels define competitors with different criteria, for example, segmentation, price, and proximity (Whitla et al., 2007). The definition of competitors is ambiguous. In the other words, hoteliers may use different criteria to define their rivalries. As a result, the significant impact of rivalry among existing hotel firms and competitive strategies are not found in this study. Another observation might be competitors in the same market segmentation might offer the similar products in terms of price, rooms, and services. Hence, the existing competitors do not indicate the major influence on strategic implementation and development.

The success of the strategy followed by one particular hotel depends on the strategies followed by the other competing hotels (Boeker, 1991). Human resource and IT strategies play an important role in measuring hotel performance. These results support the previous findings of Law and Jogaratnam (2005) and Wong and Kwan (2001). Human resource strategy is the key factor in the suc-

cess for service organizations (Wang and Shyu, 2008). Hotels need a clear set of strategic objectives of human resource strategy, standardized training and development program, a well-written job description, and satisfactory employee benefits (Wong and Kwan, 2001). These can help hoteliers evaluate and control employees' performance to meet the hotel standard. Without these human resource goals, employees may lack commitment, lose their performance, and be poorly motivated in working. The organized human resource management process such as hiring, training, and human development show significant outcomes in terms of increasing net profit and return on investment (Wang and Shyu, 2008). Hoteliers must work to retain and motivate employees by providing a living wage, meaningful benefits, and job enrichment through participation in decision making (Dev and Hubbard, 1989). Qu and Sit (2007) also suggested actions to improve the superior service for hotel customers. These actions are careful employee selection, ongoing training, executive site visits, inspections, meetings, and promotion from within.

IT strategy can be an element in creating added value within the hotel firm (Camison, 2000). A competitive IT strategy brings convenience to both employees and customers. For employees' perspectives, advanced IT reduces employee work procedure, allowing employees to work sufficiently and effectively despite time constraints. For instance, a reservation system can help the marketing department keep track of regular customers and provide statistical forecasting for future marketing development. In the meantime, customers' perspectives, IT can improve customer service levels by providing new forms of service delivery, improving customer intimacy, responding more rapidly to customer needs, and affording customers the opportunity to help themselves (Mulligan and Gorgon, 2002). As a result, IT strategy is a reliable tool for selective hotels oriented towards customer satisfaction (Camison, 2000).

Although some hotels may face some difficulty of IT investment, the response outcome shows good reasons for hoteliers to consider of investing IT. In the case of hotels with limited budget, they may not be able to invest much on IT. These hotels may consider outsourcing. Renting or contracting IT systems can provide another option for hotels with limited budget to improve hotel facilities and amenities. Advance IT can help hotels generate more income and expand their customer market into wider groups. IT can be used as an operational tool for business internal quality control. IT can transmit important customers' data where they are needed to provide customer service. IT elevates competitive advantage only if it can support employees and enhance their capacity to offer superior service to customers. IT can help hotels distinguish themselves from their competitors. Hence, hoteliers must adopt new IT and improve their IT strategy to assist hotel employees serve customers better and to improve financial performance.

In contrast, competitive brand image strategy is not statistically significant to hotel behavioral and financial performance. Some notions are explained as following. First, since this study includes all hotel segments for the analysis, the misleading outcome may occur. This could be similar as the study of O'Neill and Xiao (2006) that the positive brand occur only in the middle chain scale categories (upper upscale, upscale, and midscale), but note in the top (luxury) and bottom (economy) categories. Second, this finding may be related to the degree of franchising in hotel industry. The sensitivity of franchising has some impact on another use of financial performance such as return on investment (ROI) (Koh et al., 2009). 41% of responded hotels are chain hotels and they have to invest some expenses of franchise fees and advertising marketing from the chain companies. The number of franchise units within a hotel brand has also been shown a negative relationship with guest satisfaction and occupancy percentage (O'Neill and Mattila, 2004). Last, this is because brand image strategy may overlap with implementing human resource and IT strategies. Hoteliers promote hotel brand image via the competitiveness of human resources and advanced IT services. As a result, these reasons can support some non-significant findings of these relationships.

For the managerial viewpoint, hoteliers should be able to acknowledge environmental instability of the industry as well as utilize internal resources to support the strategic implementation decisions. The weaker the strength of industry forces that affect firms, the greater the expected profitability in the industry (Ormanidhi and Stringa, 2008). Each hotel emphasizes the importance of industry forces in different ways since the impact of firms' industry forces on its performance can be different (Galbreath and Galvin, 2008). For instance, the hotel that is customer oriented would consider the bargaining power of customers more than other industry forces (Taylor and Finley, 2009). In the mean time, the hotel that wants to remain the market share in the industry would focus on the industry force of new hotel entrants. For the internal resource competencies, the strengths of hotel's resources would be differed according to the characteristics of each hotel property, such as brand, human resources, and IT. As a result, the hotel must find the appropriate fit between industry forces and competitive resources of the hotel. This development can increase the standard of competitive advantage and achieve the best performance level.

# 6. Limitations and future research

This study was conducted with some limitations. First, it was conducted between October and December 2008. This season may be influenced by a one-time event within particular properties that may not apply to future property transactions. Future studies can be conducted during other periods. Perceptions on this topic may be different over time. Second, this study applied only three out of five industry forces of Porter (1985). The bargaining power of suppliers and the threat of substitutes tend to have little influence on implementing competitive strategies (Dale, 2000; Kim and Oh, 2004; Olsen and Roper, 1998). These two forces can be included for the future study, the same as competitive resources might be further explored with other resource aspects. Next, the means of behavioral and financial performance are above the norm for the industry. These ratings would be somewhat over presented. The constructive measurements such as indicating the exact number of financial performance indicators would be proposed. Lastly, this study faced low response rate issues. The non-respondents might have had different perceptions of the issues that were examined. The future research can further expand the scope of the study in the direct effect on industry forces on performance and the interaction effect between industry forces and competitive methods on performance.

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